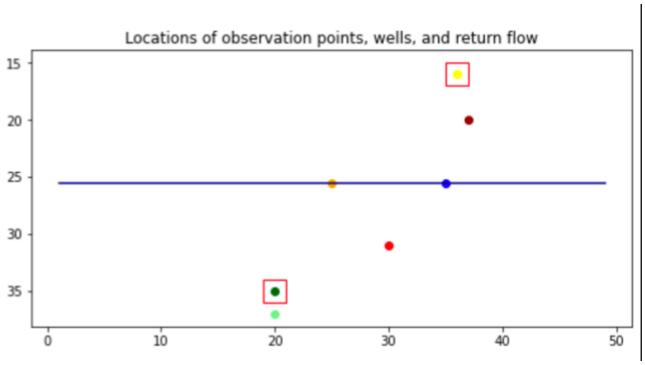
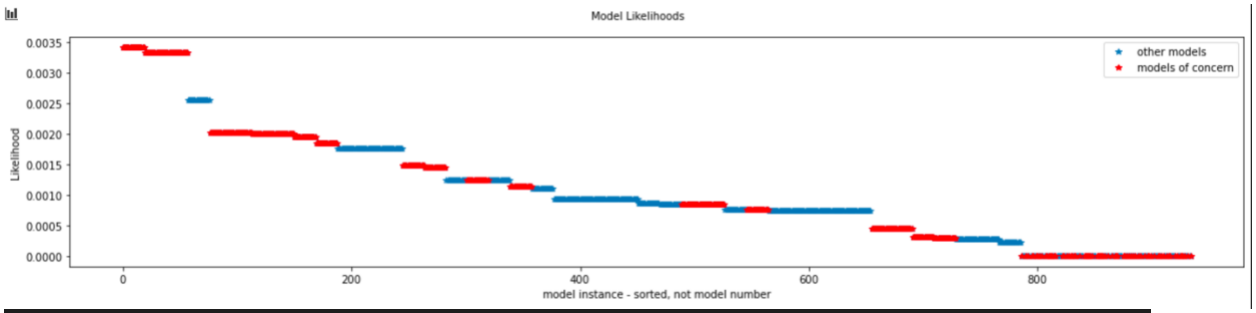
1. Change crop type to 2=cotton
   change nw cell of farm to 1=[34,19]
   cell of irrigation well 3= [0,31,30]



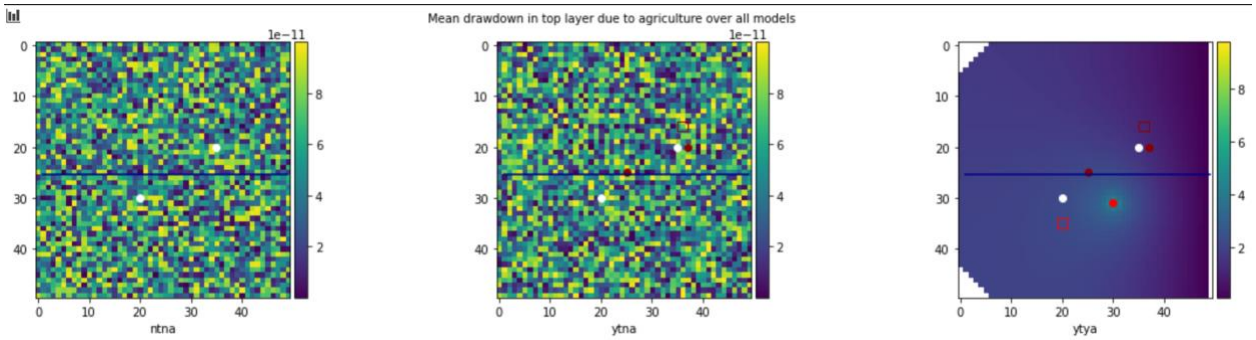
2. Run modgentype=0
3. Drag and drop models
4. Run analyze as the ag stakeholder
5. Find some models of concern: *There were 0*
6. Let's analyze as the town stakeholder

   There were 149 non-behavorial models
   There were 376 models of concern

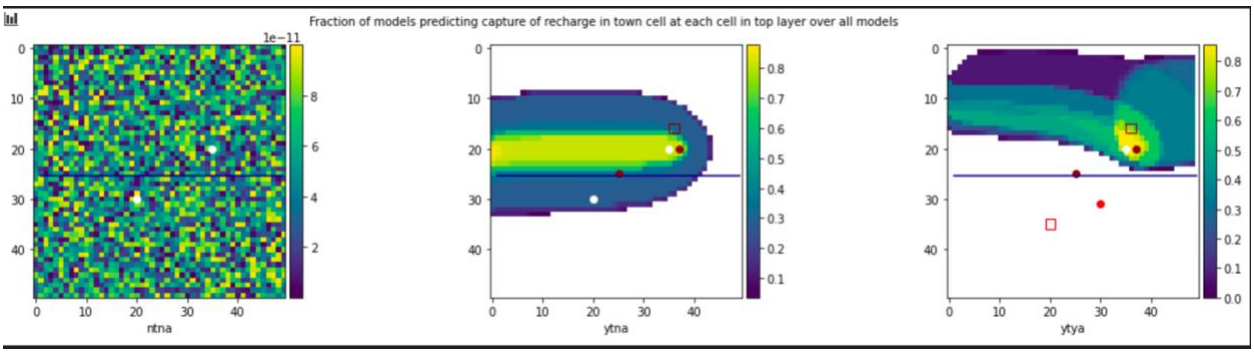



```
Models with highest likelihoods

m002131334002114  L = 0.003 model of concern
m002131332044004  L = 0.003 model of concern
m002131333140300  L = 0.003 model of concern
m002131331144240  L = 0.003 model of concern
m002131331404141  L = 0.003 model of concern
m002131331131010  L = 0.003 model of concern
m002131331413140  L = 0.003 model of concern
m002131333140300  L = 0.003 model of concern
m002131331220024  L = 0.003 model of concern
m002131332003043  L = 0.003 model of concern

The total likelihood of the models of concern is  0.587
```

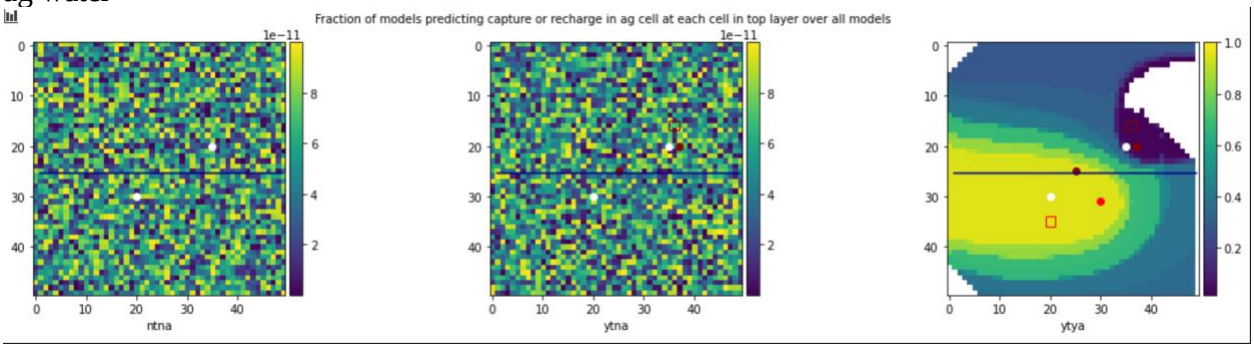
The top 10 highest likelihood models were MOC's



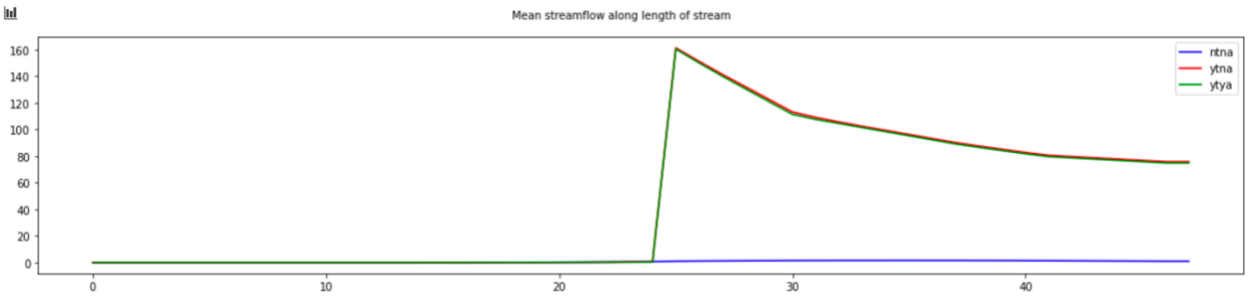
The drawdown to ag dosent look too concerning. It is a significant drawdown of around maybe 6+ units but very close to the well.



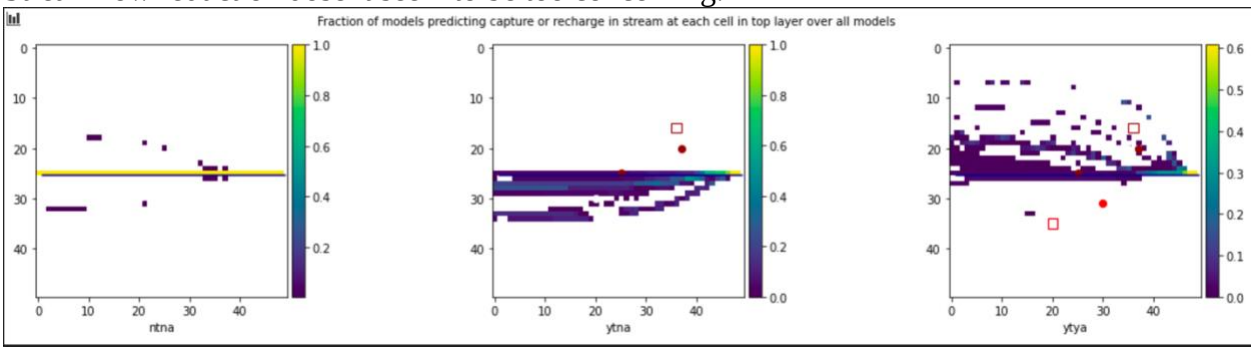
Town has 70% likelihood of capturing their own recharge in ytya no chance they are capturing ag water



Ag has 100% likelihood they are capturing their farm water. They have very low likelihood ~ 10% they are capturing town recharge water. Also there is 100% likelihood they will capture stream water.



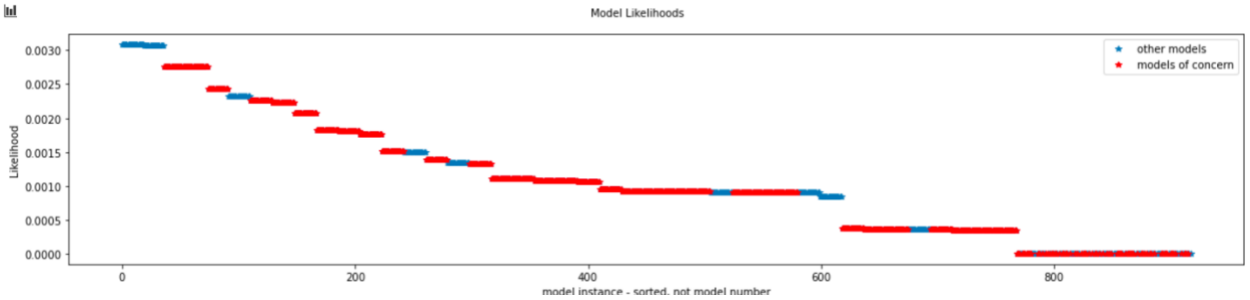
Streamflow reduction dosent seem to be too concerning.



Stream not capturing ag recharge or town recharge water

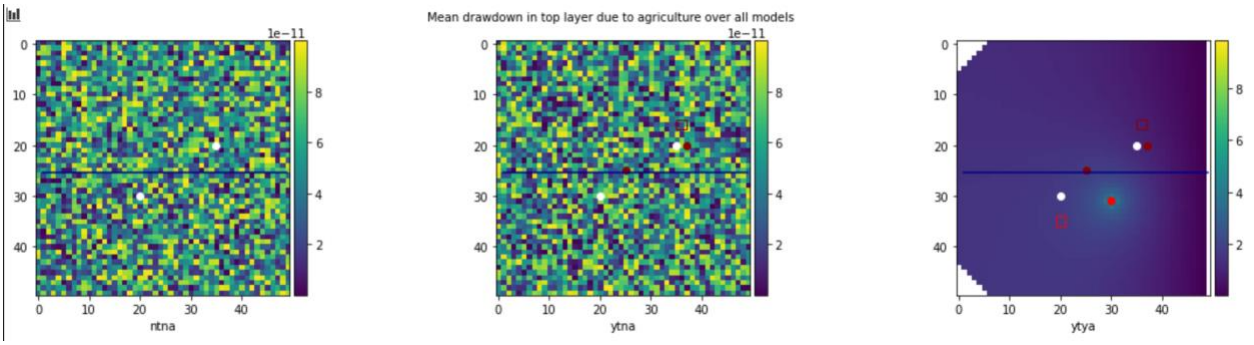
Now lets run modgentype=1 with the top 10 most likely models from the base condition and remember they were all MOC's

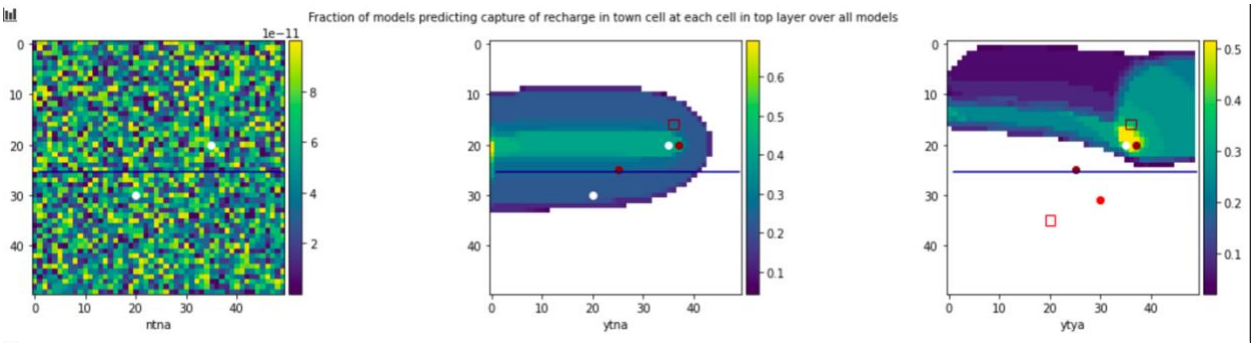
There were 150 non-behavioral models
There were 599 models of concern

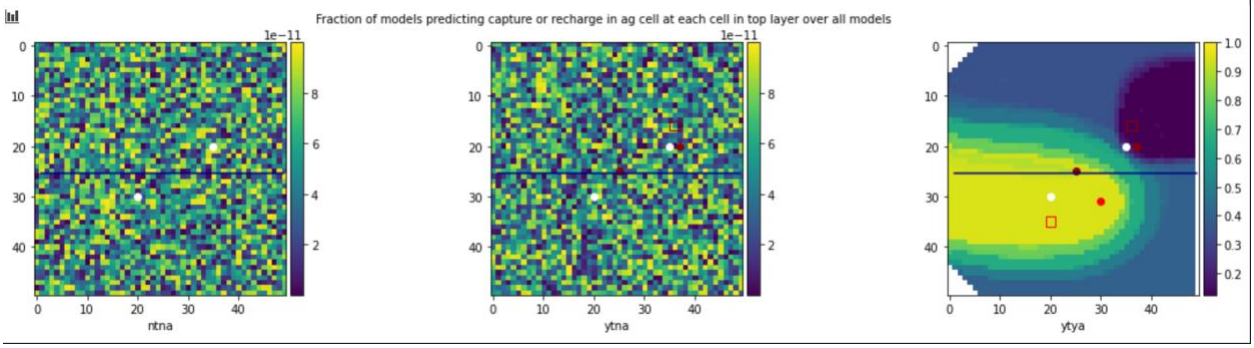


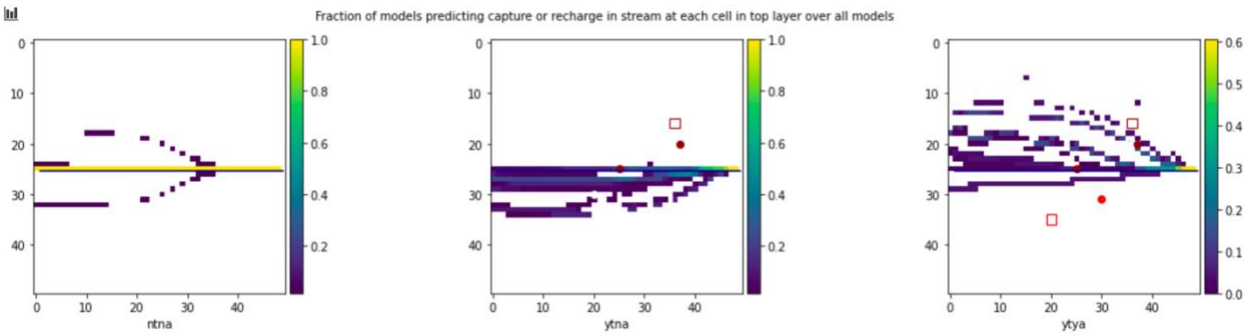
```
Models with highest likelihoods

m002131334002114  L = 0.003 other model
m002131331443020  L = 0.003 other model
m002131332004344  L = 0.003 other model
m002131332044004  L = 0.003 other model
m002131333140300  L = 0.003 other model
m002131332143043  L = 0.003 other model
m002131331144240  L = 0.003 other model
m002131331404141  L = 0.003 other model
m002131332030044  L = 0.003 other model
m002131334344100  L = 0.003 other model

The total likelihood of the models of concern is  0.734
```

Top 10 models with highest likelihoods were NOT MOC's but with such a large quantity of MOC's the total likelihood of MOC's was 73.4%

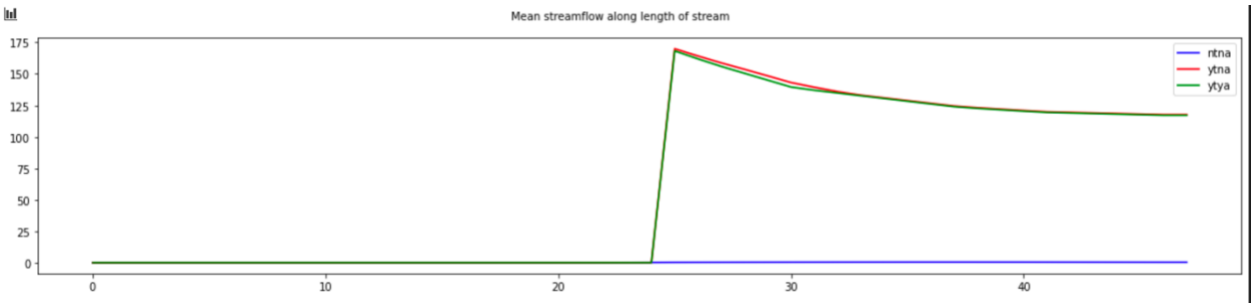




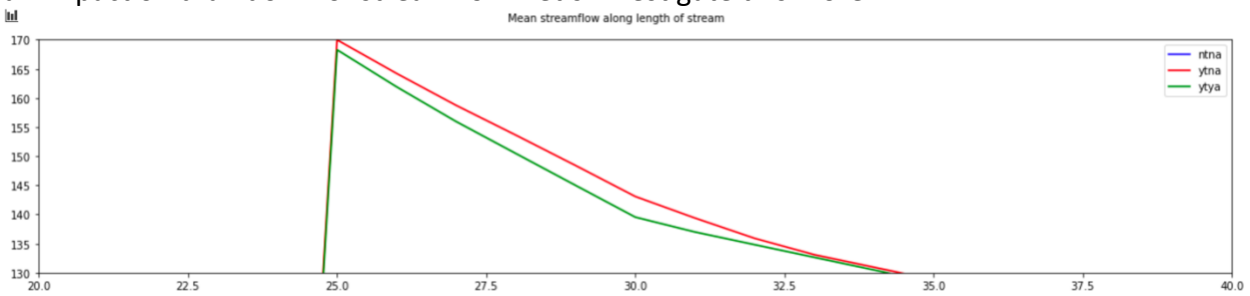




All of these figures look roughly the same. Almost unchanged. It looks like a slightly higher chance that the town & ag well pulls water from the right boundary.



One thing that does look interesting is along the stream reach it looks like the ag well does have an impact on drawdown of streamflow. Let's investigate this more.



When looking at streamflow we can see in sections 24-33 streamflow is lowered in ytya scenario. The largest discrepancy looks to be around section 30. This means the ag well, located in close proximity to the stream does have an impact on the stream.